

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

MicroPairing Technologies LLC,

Plaintiff,

v.

General Motors LLC,

Defendant.

Civil Action No. 6:21-cv-00761

Jury Trial Demanded

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff MicroPairing Technologies LLC files this Complaint against General Motors LLC for infringement of U.S. Patent Nos. 7,178,049 (the '049 patent"), 8,020,028 ("the '028 patent), and 8,006,117 ("the '117 patent"). The '049 patent, '028 patent, and '117 patent are referred to collectively as the "patents-in-suit."

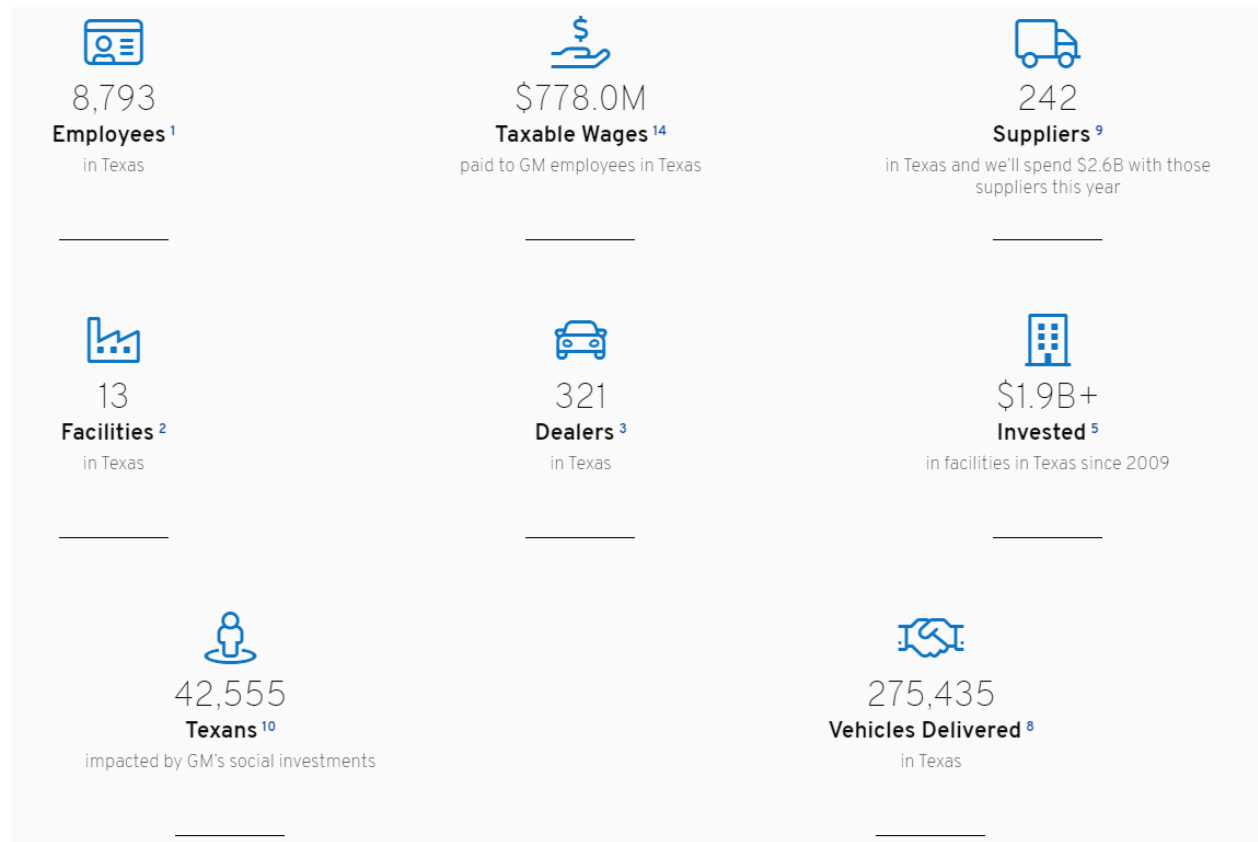
THE PARTIES

1. Plaintiff MicroPairing Technologies LLC ("MicroPairing") is a Texas limited liability company located in Plano, Texas.

2. Defendant General Motors LLC ("General Motors") is a Delaware corporation with a regular and established place of business located at 13201 McCallen Pass, Austin, Texas 78753. General Motors may be served with process through its registered agent, Corporation Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

3. General Motors employs more than 7,000 workers in Texas. General Motors boasts that it has paid \$805 million in taxable wages to GM employees in Texas. General

Motors further admits that it has thirteen facilities in Texas. A summary of General Motors' deep ties to Texas can be found on General Motors' own website:



See <https://www.gm.com/our-company/us/tx.html>

4. General Motors has two facilities listed on its website that are located in this District: the GM Austin Customer Engagement Center and the Austin IT Innovation Center.



Arlington Assembly
Arlington, TX

View Factsheet



Fort Worth Parts
Distribution Center
Roanoke, TX

View Factsheet



GM Financial
Arlington Operations
Service Center
Arlington, TX

Visit Website



GM Financial
Headquarters
Fort Worth, TX

Visit Website



GM Financial San
Antonio Customer
Service Center
San Antonio, TX

Visit Website

GM Austin Customer
Engagement Center
Austin, TX

Austin IT Innovation
Center
Austin, TX

South Central
Regional Office
(South Central) TX

See <https://www.gm.com/our-company/us/tx.html>.

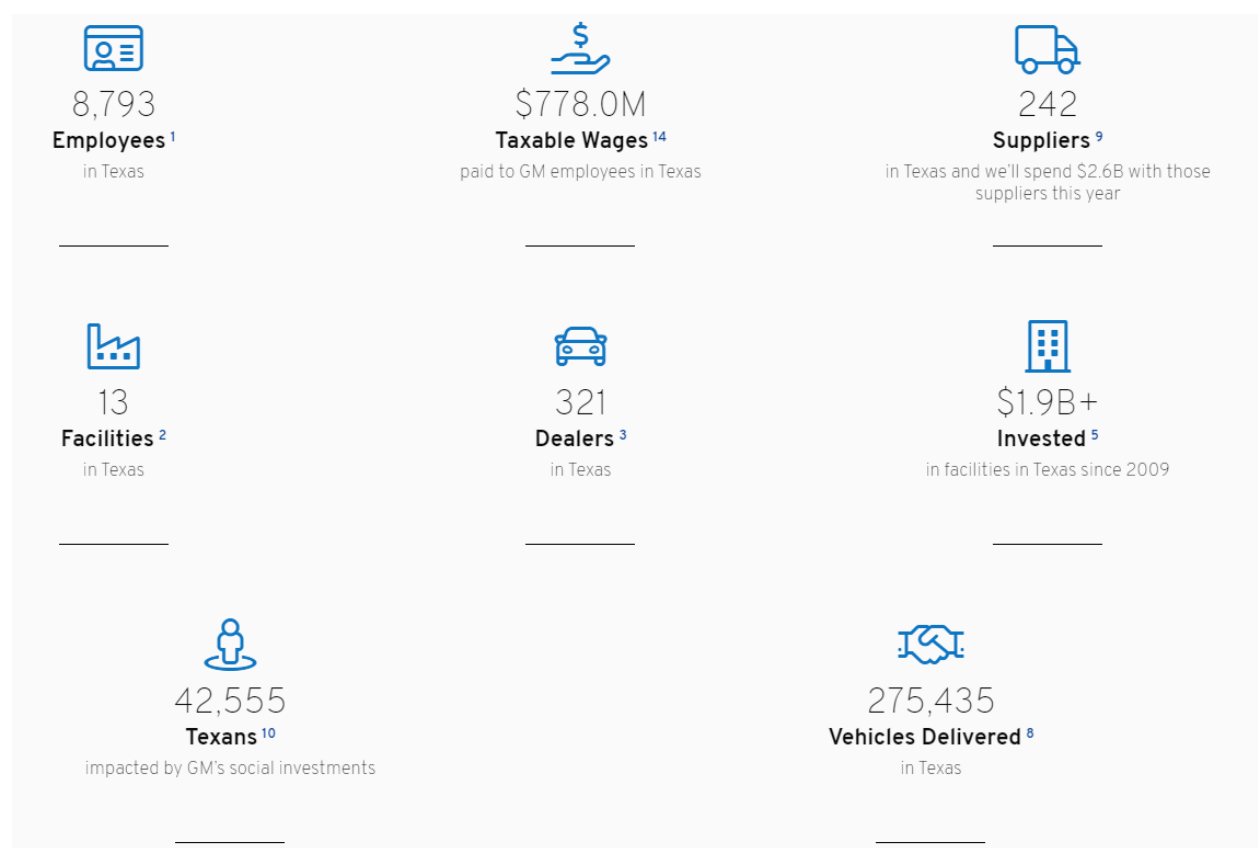
5. The Austin IT Innovation Center (the “Innovation Center”) has been described as the largest Innovation Center nationwide with more than 2,600 employees. See <https://www.bizjournals.com/austin/news/2018/06/21/cognitive-convergence-inside-gms-austin-tech.html>

JURISDICTION AND VENUE

6. This action arises under the patent laws of the United States, 35 U.S.C. § 101, *et seq.* This Court’s jurisdiction over this action is proper under the above statutes, including 35 U.S.C. § 271, *et seq.*, 28 U.S.C. § 1331 (federal question jurisdiction), and 28 U.S.C. § 1338 (jurisdiction over patent actions).

7. This Court has personal jurisdiction over General Motors in accordance with due process and/or the Texas Long Arm Statute because, among other things, General Motors does business in this state by, among other things, “recruit[ing] Texas residents, directly or through an intermediary located in this state, for employment inside or outside this state.” TEX. CIV.

PRAC. & REM. CODE § 17.042(3):



See, e.g., <https://www.gm.com/our-company/us/tx.html>.

8. Further, this Court has personal jurisdiction over General Motors because it has engaged, and continues to engage, in continuous, systematic, and substantial activities within this state, including the substantial marketing and sale of products and services within this state and this District. Indeed, this Court has personal jurisdiction over General Motors because it has committed acts giving rise to MicroPairing’s claims for patent infringement within and directed to this District, has derived substantial revenue from its goods and services provided to

individuals in this state and this District, and maintains a regular and established place of business in this District, including its facilities in Austin, Texas.

9. Relative to patent infringement, General Motors has committed and continues to commit acts in violation of 35 U.S.C. § 271, and has made, used, marketed, distributed, offered for sale, and/or sold infringing products and services in this state, including in this District, and otherwise engaged in infringing conduct within and directed at, or from, this District. Such infringing products and services include (1) Chevrolet and Buick vehicles with the Infotainment 3 System or later, (2) GMC vehicles with the GMC Infotainment System or later, (3) Cadillac vehicles with the CUE and/or next-generation Cadillac user experience infotainment system, and (4) certain other Chevrolet, Buick, Cadillac, and GMC vehicles that have infotainment systems and operate on the AUTOSAR platform. All Chevrolet, Buick, GMC, and Cadillac branded vehicles are hereinafter referred to collectively as “General Motors Vehicles.” All such infringing systems are hereinafter referred to collectively as “General Motors Infotainment Systems.” Additionally, some General Motors Infotainment Systems may bear the “IntelliLink” brand name. Such infringing products and services have been and continue to be distributed to, offered for sale, sold, and used in this District and the infringing conduct has caused, and continues to cause, injury to MicroPairing, including injury suffered within this District. These are purposeful acts and transactions in this state and this District such that General Motors reasonably should know and expect that it can be haled into this Court because of such activities.

10. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b) because a substantial part of the events or omissions giving rise to the MicroPairing claims occurred in this District. This includes extensive commission of acts of infringement in this District. General Motors also has a regular and established place of business in this District in the form of, at least,

the GM Austin Customer Engagement Center and its Austin IT Innovation Center. Indeed, General Motors conducts business in this District, including making and servicing infringing vehicles for, and offering to sell, selling, and distributing infringing vehicles and related services to, General Motors customers in this District.

THE PATENTS-IN-SUIT

11. The '049 patent is entitled, "Method for Multi-Tasking Multiple Java Virtual Machines in a Secure Environment." The '049 patent lawfully issued on February 13, 2007 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the '049 patent is attached hereto as Ex. 1.

12. The '028 patent is entitled, "Application Management System for Mobile Devices." The '028 patent lawfully issued on September 13, 2011 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the '028 patent is attached hereto as Ex. 2.

13. The '117 patent is entitled, "Method for Multi-Tasking Multiple Java Virtual Machines in a Secure Environment." The '117 patent lawfully issued on August 23, 2011 and stems from U.S. Patent Application No. 10/132,886, which was filed on April 24, 2002. A copy of the '117 patent is attached hereto as Ex. 3.

14. MicroPairing is the owner of the patents-in-suit with all substantial rights, including the exclusive right to enforce, sue, and recover damages for past and future infringements.

15. MicroPairing's claims do not have damages limited by 35 U.S.C. 287. MicroPairing is only seeking damages for: (1) infringement of method claims of the '049 and

'028 patents; and (2) infringement of claims of the '117 patent accruing upon and after service of the present Complaint.

16. The claims of the patents-in-suit are directed to patent eligible subject matter under 35 U.S.C. § 101. They are not directed to an abstract idea, and the technologies covered by the claims comprise vehicle systems and/or consist of ordered combinations of features and functions that, at the time of invention, were not, alone or in combination, well-understood, routine, or conventional.

17. The specifications of the patents-in-suit disclose shortcomings in the prior art and then explain, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. For example, the specification of the '049 patent also discloses shortcomings in the prior art and then explains, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. For example, the specification of the '049 patent discusses that:

A java application stack includes a Java layer 5 for running any one of multiple different applications. In one example, the applications are related to different vehicle operations such as Infrared (IR) and radar sensor control and monitoring, vehicle brake control, vehicle audio and video control, environmental control, driver assistance control, etc. A Java Virtual Machine (JVM) layer 16 provides the hardware independent platform for running the Java applications 5. A Jini layer 12 provides some limited security for the Java applications that run on different machines. However, the Jini layer 12 does not provide the necessary reconfiguration and security management necessary for a distributed real-time multiprocessor system.

Ex. 1 at 2:22-35. To resolve this issue, the '049 patent proposes:

A Secure Real-time Executive (SRE) 14 provides an extension to the JVM 16 and allows Java to run on different processors for real-time applications. The SRE 20 manages messaging, security, critical data, file I/O multiprocessor task control and watchdog tasks in the Java environment as described below. The JVM 16, Jini 12 and SRE 14 can all be implemented in the same JVM 10.

Id. at 2:36-42.

18. The '049 patent describes how this invention would apply to motor vehicles:

The SRE 14 runs below the JVMs 10 in each processor and control tasks, messaging, security, etc. For example, the Java application 26 controls vehicle braking according to the sensor data collected by the sensor fusion Java application 32. The SRE 14 in one example prevents unauthorized data from being loaded into the processor 16 that runs brake control application 26. The SRE 14 also prevents other Java applications that are allowed to be loaded into processor 16 from disrupting critical braking operations, or taking priority over the braking operations, performed by Java application 26.

For example, the SRE 14 may prevent noncritical vehicle applications, such as audio control, from being loaded onto processor 16. In another example, noncritical operations, such as security control application 28, are allowed to be loaded onto processor 16. However, the SRE 14 assigns the security messages low priority values that will only be processed when there are no braking tasks in application 26 that require processing by processor 16.

Id. at 2:57-3:8.

19. Solutions to the problems outlined by the '049 patent are embodied, for example, in claim 29:

A method for configuring real-time vehicle applications in a distributed multi-processor system operating in a vehicle, comprising:

identifying vehicle applications running on different processors in the multiprocessor system;

operating a task manager that obtains different data and state information associated with the different vehicle applications;

operating a configuration manager that notifies the task manager upon detecting a failure running one of the identified vehicle applications in the multiprocessor system;

using the task manager for automatically identifying another processor in the multiprocessor system for running the identified vehicle application and redirecting the vehicle application associated with the detected failure to the other identified processor in the vehicle;

using the configuration manager to redirect the data and state information to the other identified processor in the vehicle after detecting the failure; and

initiating the identified application in the identified other processor.

Id. at claim 29.

20. The specifications of the '028 patent and '117 patent also disclose shortcomings in the prior art and then explain, in detail, the technical way the claimed inventions resolve or overcome those shortcomings. For example, the specification of the '028 patent (which closely mirrors the '117 patent specification) discusses that Java and Jini work together to “extend[] the Java application environment from a single virtual machine to a network of machines. The Java application environment provides a good computing platform for distributed computing because both code and data can move from machine to machine. The Jini infrastructure provides mechanisms for devices, services, and users to join and detach from a network. Jini systems are more dynamic than is currently possible in networked groups where configuring a network is a centralized function done by hand.” Ex. 2 at 1:38-50.

21. However,

[T]he Java/Jini approach is not without its disadvantages. Both Java and Jini are free, open source applications. The Java application environment is not designed for controlling messaging between different machines. For example, the Java application is not concerned about the protocols between different hardware platforms. Jini has some built-in security that allows code to be downloaded and run from different machines in confidence. However, this limited security is insufficient for environments where it is necessary to further restrict code sharing or operation sharing among selected devices in a secure embedded system.

Id. at 1:51-61.

22. The specifications of the '028 patent and '117 patent thus describe an embodiment of the invention that solves the problem posed by the patents, as follows:

A Secure Real-time Executive (SRE) 14 provides an extension to the JVM 16 and allows Java to run on different processors for real-time applications. The SRE 20 manages messaging, security, critical data, file I/O multiprocessor task control and watchdog tasks in the Java environment as described below. The JVM 16, Jini 12 and SRE 14 can all be implemented in the same JVM 10, However, for explanation purposes, the JVM 10 and the SRE 14 will be shown as separate elements.

Id. at 2:39-47.

23. The patents also describe how this invention would apply to motor vehicles:

The SRE 14 runs below the JVMs 10 in each processor and control tasks, messaging, security, etc. For example, the Java application 26 controls vehicle braking according to the sensor data collected by the sensor fusion Java application 32. The SRE 14 in one example prevents unauthorized data from being loaded into the processor 16 that runs brake control application 26. The SRE 14 also prevents other Java applications that are allowed to be loaded into processor 16 from disrupting critical braking operations, or taking priority over the braking operations, performed by Java application 26.

For example, the SRE 14 may prevent noncritical vehicle applications, such as audio control, from being loaded onto processor 16. In another example, noncritical operations, such as security control application 28, are allowed to be loaded onto processor 16. However, the SRE 14 assigns the security messages low priority values that will only be processed when there are no braking tasks in application 26 that require processing by processor 16.

Id. at 2:60-3:10.

24. Solutions to the problems outlined by the '028 patent are embodied, for example, in claim 18:

A method for reconfiguring applications in a multiprocessor, comprising:

operating a wireless device manager in at least one processor in the multiprocessor system, the wireless device manager configured to:

a. monitor for wireless signals from a new device not currently coupled to the multiprocessor system, wherein the new device runs a first software application that processes a first type of data; and

b. wirelessly connect the new device to the multiprocessor system;

operating a configuration manager in one of the multiple processors in the multiprocessor system, the configuration manager configured to:

c. monitor operations of the multiple processors in the multiprocessor system;

d. identify data codes in the wireless signals from the new device and use the data codes to identify the first type of data processed by the first software application running on the new device;

- e. responsive to identifying the data codes from the new device, select a second software application from among multiple different software applications stored within memory in the multiprocessor system, wherein the second software application is associated with the first type of data processed by the new device and is not currently loaded into one of the multiple processors in the multiprocessor system;
- f. download a copy of the second software application selected from the memory to one of the multiple processors in the multiprocessor system;
- g. reconfigure one of the multiple processors in the multiprocessor system to run the second software application downloaded from the memory and take over control and operation of the new device; and
- h. process data from the new device with the second software application operating in and controlled by the particular one of the multiple processors in the multiprocessor system; and
- i. operating a security manager configured to determine authority to access at least some of the new devices, software applications or data used in the multiprocessor system.

Id. at claim 18.

25. Solutions to the problems outlined by the '117 patent are embodied, for example, in claim 1:

A computer system, comprising:

a memory;

a real-time operating system;

a user interface;

one or more processors in a processing system, wherein the processing system is configured to:

operate a transceiver,

detect a new device within communication range of the transceiver,

detect a protocol used by the new device,

communicate with the new device in response to the detected protocol conforming with a protocol used by the processing system;

an application management system configured to:

identify data parameters that include at least one of data codes, data type and device ID associated with the new device,

verify the new device data parameters as at least one of authorized or unauthorized; and

responsive to verifying the data parameters as authorized, connect to the new device, dynamically configure an application to process the data types and launch the application in the processing system, wherein the application in response to launching is configured to take over control and operation of the new device including:

initiating transfer of data from the new device to the operating system; and

initiate processing of the data received from the new device.

Ex. 3 at claim 1.

26. In essence, the patents-in-suit relate to novel and non-obvious inventions in the field of in-vehicle device connectivity, specifically infotainment systems and the AUTOSAR platform in cars and trucks.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 7,178,049

27. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

28. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

29. MicroPairing is the owner of the '049 patent with all substantial rights to the '049 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

30. The '049 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

31. Attached hereto as Ex. 4, and incorporated herein by reference, is a claim chart detailing how General Motors infringes the '049 patent.

Direct Infringement (35 U.S.C. § 271(a))

32. General Motors has directly infringed and continues to directly infringe one or more claims of the '049 patent in this District and elsewhere in Texas and the United States.

33. To this end, General Motors has infringed and continues to infringe, either by itself or via an agent, at least claims 29 – 31 of the '049 patent by, among other things, testing and using General Motors Vehicles equipped with General Motors Infotainment Systems, and/or by directing, controlling, and setting into operation the performance of the claimed methods of the '049 patent (e.g., by providing software that is not accessible to end users and automatically performs the steps of the claimed methods) while obtaining substantial benefit from such direction and control (e.g., redundant and/or fault tolerant safety and control systems to provide improved vehicle safety and reliability).

Indirect Infringement (Inducement – 35 U.S.C. § 271(b))

34. In addition and/or in the alternative to its direct infringement, General Motors has indirectly infringed and continues to indirectly infringe one or more claims of the '049 patent by inducing direct infringement by its customers and end users.

35. General Motors has knowledge of the '049 patent, its infringements, and the infringements of its customers and end users based, at least, on its receipt of this Complaint in this action.

36. Despite having knowledge (or being willfully blind to the fact) that use of the General Motors Vehicles equipped with General Motors Infotainment Systems infringe the '049 patent, General Motors has specifically intended, and continues to specifically intend, for persons who acquire and use such vehicles, including General Motors' customers and end users, to use the vehicles in a way that results in infringement of the '049 patent, including at least claims 29 – 31. Indeed, General Motors knew or should have known that its actions have induced, and continue to induce, such infringements.

37. General Motors instructs and encourages customers and end users to use their General Motors Vehicles equipped with General Motors Infotainment Systems in a manner that infringes the '049 patent. For example, General Motors provides owners and other users with a “2020 Chevrolet Infotainment System Owner’s Manual,” attached as Ex. 7, which provides owners and users with instructions on how to use the infotainment system and vehicle safety features that implicate the AUTOSAR platform in a way that results in infringement of the '049 patent. General Motors also provides in its vehicles computer programs (i.e., instructions) that cause performance of claimed methods.

Damages

38. General Motors is liable for its infringements of the '049 patent pursuant to 35 U.S.C. § 271.

39. MicroPairing has been damaged as a result of General Motors' infringing conduct described in this Count. General Motors is, thus, liable to MicroPairing in an amount that adequately compensates it for General Motors' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 8,020,028

40. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

41. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

42. MicroPairing is the owner of the '028 patent with all substantial rights to the '028 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

43. The '028 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

44. Attached hereto as Ex. 5, and incorporated herein by reference, is a claim chart detailing how General Motors infringes the '028 patent.

Direct Infringement (35 U.S.C. § 271(a))

45. General Motors has directly infringed and continues to directly infringe one or more claims of the '028 patent in this District and elsewhere in Texas and the United States.

46. To this end, General Motors has infringed and continues to infringe, either by itself or via an agent, at least claim 18 of the '028 patent by, among other things, testing and using General Motors Vehicles equipped with General Motors Infotainment Systems, and/or by directing, controlling, and setting into operation the performance of the claimed methods of the '028 patent (e.g., by providing software that is not accessible to end users and automatically performs the steps of the claimed methods) while obtaining substantial benefit from such direction and control (e.g., offering seamless integration of key infotainment system functionality consistent with consumer expectations).

Indirect Infringement (Inducement – 35 U.S.C. § 271(b))

47. In addition and/or in the alternative to its direct infringement, General Motors has indirectly infringed and continues to indirectly infringe one or more claims of the '028 patent by inducing direct infringement by its General Motors vehicle customers and end users.

48. General Motors has knowledge of the '028 patent, its infringements, and the infringements of its customers and end users based, at least, on its receipt of this Complaint in this action.

49. Despite having knowledge (or being willfully blind to the fact) that use of the General Motors Vehicles equipped with General Motors Infotainment Systems infringe the '028 patent, General Motors has specifically intended, and continues to specifically intend, for persons who acquire and use such vehicles, including General Motors' customers and end users, to use the vehicles in a way that results in infringement of the '028 patent, including at least claim 18. Indeed, General Motors knew or should have known that its actions have induced, and continue to induce, such infringements.

50. General Motors instructs and encourages customers and end users to use their General Motors Vehicles equipped with General Motors Infotainment Systems in a manner that infringes the '028 patent. For example, General Motors provides owners and other users with a "2020 Chevrolet Infotainment System Owner's Manual," attached as Ex. 7, which provides owners and users with instructions on how to use the infotainment system in a way that results in infringement of the '028 patent. General Motors also provides in its vehicles computer programs (i.e., instructions) that cause performance of claimed methods.

Damages

51. General Motors is liable for its infringements of the '028 patent pursuant to 35 U.S.C. § 271.

52. MicroPairing has been damaged as a result of General Motors' infringing conduct described in this Count. General Motors is, thus, liable to MicroPairing in an amount that adequately compensates it for General Motors' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 8,006,117

53. MicroPairing repeats and realleges each allegation above as if fully set forth herein.

54. This cause of action arises under the patent laws of the United States, and in particular, 35 U.S.C. §§ 271, *et seq.*

55. MicroPairing is the owner of the '117 patent with all substantial rights to the '117 patent including the exclusive right to enforce, sue, and recover damages for past and future infringements.

56. The '117 patent is valid and enforceable and was duly issued in full compliance with Title 35 of the United States Code.

57. Attached hereto as Ex. 6, and incorporated herein by reference, is a claim chart detailing how General Motors infringes the '117 patent.

Direct Infringement (35 U.S.C. § 271(a))

58. General Motors has directly infringed and continues to directly infringe one or more claims of the '117 patent in this District and elsewhere in Texas and the United States.

59. To this end, General Motors has infringed and continues to infringe, either by itself or via an agent, at least claim 1 of the '117 patent by, among other things, making, having made, offering to sell, selling, testing and/or using General Motors Vehicles equipped with General Motors Infotainment Systems.

Damages

60. General Motors is liable for its infringements of the '117 patent pursuant to 35 U.S.C. § 271.

61. MicroPairing has been damaged as a result of General Motors' infringing conduct described in this Count. General Motors is, thus, liable to MicroPairing in an amount that adequately compensates it for General Motors' infringements, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

DEMAND FOR A JURY TRIAL

MicroPairing demands a trial by jury on all issues triable of right by jury pursuant to Rule 38 of the Federal Rules of Civil Procedure.

PRAYER FOR RELIEF

MicroPairing respectfully requests that this Court enter judgment in its favor and grant the following relief:

- (i) Judgment and Order that General Motors has directly infringed one or more claims of each of the patents-in-suit;
- (ii) Judgment and Order that General Motors has induced infringement of one or more claims of the '049 patent and '028 patent;
- (iii) Judgment and Order that General Motors must pay MicroPairing past and future

damages under 35 U.S.C. § 284, including supplemental damages arising from any continuing, post-verdict infringement for the time between trial and entry of the final judgment, together with an accounting, as needed, as provided under 35 U.S.C. § 284;

- (iv) Judgment and Order that General Motors must pay MicroPairing reasonable ongoing royalties on a go-forward basis after Final Judgment;
- (v) Judgment and Order that General Motors must pay MicroPairing pre-judgment and post-judgment interest on the damages award;
- (vi) Judgment and Order that General Motors must pay MicroPairing's costs;
- (vii) Judgment and Order that the Court find this case exceptional under the provisions of 35 U.S.C. § 285; and
- (viii) Such other and further relief as the Court may deem just and proper.

Dated: July 26, 2020

Respectfully submitted,

/s/ Edward R. Nelson III

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